



Frangopol and Ph.D. advisee promote structural life-cycle management



Prof. Dan Frangopol, right, with his Ph.D. advisee and study co-author Mohamed Soliman.

Dan Frangopol, the Fazlur Rahman Khan Endowed Chair of Structural Engineering and Architecture and a professor in the department of civil and environmental engineering (CEE), began 2013 by guest-lecturing on three continents in as many months.

The papers associated with all three lectures were co-authored with Mohamed Soliman, a Ph.D. candidate in CEE's [structural engineering program](#) and a P.C. Rossin Doctoral Fellow in the [College of Engineering](#). The Rossin Doctoral Fellowships are awarded to an elite group of Ph.D. students interested in pursuing both research and an academic career.

Most recently, Frangopol spent March 11 and 12 in Germany at the [23rd Dresden Bridge Symposium](#), having been selected by the event organizers to present the only English-language [plenary lecture](#) there. A German national event, the symposium is organized by Dresden University of Technology's Institute of Concrete Structures and has attracted as many as 1,350 participants. Frangopol gave a lecture entitled "Life-cycle management of bridges under uncertainty."

On February 21, Frangopol traveled to Arlington, Virginia to join the [American Society of Naval Engineers](#) at their annual meeting. The two-day technical symposium brought together members of the naval engineering community, including leaders from industry, academia, government and military. Frangopol's lecture, "Ship Structural Life-cycle Management," was featured under the Ship Structures track during "ASNE Day 2013: Engineering America's Maritime Dominance."

Frangopol began his 2013 [invited lectures](#) at [The Pacific-Rim Workshop on Innovations in Civil Infrastructure Engineering](#), held in Taipei, Taiwan, January 9-11. As a keynote speaker, Frangopol spoke on the topic of "Integration of reliability, optimization and structural health monitoring in life-cycle management of structures: Emphasis on highway bridges."

Currently, Frangopol and his research group — including Ph.D. students Alberto Decò, Benjin Zhu, Duygu Saydam, Jie Liu, Mohamed Soliman, Samantha Sabatino and You Dong — are developing an enhanced life-cycle framework for deteriorating bridges and naval ships. By integrating structural health monitoring and time-variant system performance measures, the framework allows for near-real-time optimal decision-making under uncertainty.

[Read about how Professor Frangopol is connecting researchers around the world to study life-cycle engineering of structural systems.](#)

—*Shelley Drozd*
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